

## AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

### In the claims

1. - 122. (Canceled).

123. (Currently Amended): A device for managing respiration of a patient comprising:

at least one electrode in electrical communication with a diaphragm or phrenic nerve tissue of a patient's body;

a stimulator in electrical communication with the at least one electrode and whereby the stimulator receives ~~phrenic nerve activity detected internally within the patient's body in response to~~ sensed-respiration activity sensed by at least one electrode,

wherein the stimulator is programmed to generate an electrical stimulation signal in response to the sensed respiration and deliver the electrical stimulation signal through the at least one electrode to the diaphragm or phrenic nerve tissue, wherein said stimulator is configured to deliver an electrical stimulation signal comprising a burst or series of pulses during inspiration to adjust the breathing cycle of said patient, and

wherein the electrical stimulation signal ~~elicits~~ is configured to elicit a diaphragm response by stimulating to increase an inspiration duration which supplements such that an inspiration volume is different from an intrinsic inspiration volume of an intrinsic a breath.

124. – 125. (Canceled).

126. (Currently Amended): A device for managing respiration of a patient comprising:

at least one electrode in electrical communication with a diaphragm or phrenic nerve tissue of a patient's body;

a stimulator in electrical communication with the at least one electrode whereby the stimulator receives ~~phrenic nerve activity detected internally within the patient's body in response to respiration~~ activity sensed by at the least one electrode,

wherein the stimulator is programmed to generate an electrical stimulation signal in response to the sensed respiration and deliver the electrical stimulation signal through the at least one electrode to the diaphragm or phrenic nerve tissue, wherein said stimulator is configured to deliver the electrical stimulation signal as a burst or series of pulses during inspiration to adjust the breathing cycle of said patient, and

wherein the electrical stimulation signal ~~elicits~~ is configured to elicit a diaphragm response by stimulating to supplement an inspiration volume of a breath such that an exhalation volume is different from an intrinsic exhalation volume of an intrinsic breath.

127. – 140. (Canceled).

141. (Currently Amended): The device of claim 123 or 126 wherein the stimulator is further programmed to elicit an inspiration rate different from an intrinsic inspiration rate.

142. – 148. (Canceled).

149. (Currently Amended): The device of claim ~~[[126]]~~ 123 wherein the stimulator is programmed to deliver a stimulation signal to the tissue through the at least one electrode to elicit a slow elongated inspiration.

150. (Currently Amended): The device of claim ~~[[126]]~~ 123 wherein the stimulator is programmed to deliver a stimulation signal to the tissue through the at least one electrode to elicit a fast, short inspiration.

151. (Currently Amended): The device of claim 123 or 126 wherein the stimulator is further programmed to deliver low level sequential stimulations.

152. (Currently Amended): The device of claim 123 or 126 wherein the stimulator is configured to deliver a stimulation signal that is directed to manipulating blood gases to thereby treat disordered breathing.

153. (Currently Amended): A device for managing respiration of a patient comprising:

at least one electrode in electrical communication with a diaphragm or phrenic nerve tissue of a patient's body;

a stimulator in electrical communication with the at least one electrode whereby the stimulator receives ~~phrenic nerve activity detected internally within the patient's body in response to~~ respiration activity sensed by at the least one electrode,

wherein the stimulator is programmed to generate an electrical stimulation signal in response to the sensed respiration, programmed with a threshold level of a respiratory parameter and configured to deliver the electrical stimulation signal comprising a burst or series of pulses if the sensed respiration activity falls outside the threshold level to adjust the breathing cycle of said patient, said the electrical stimulation signal delivered through the at least one electrode to the diaphragm or phrenic nerve tissue, and

wherein the electrical stimulation signal is configured to activate ~~activates~~ at least a portion of a the diaphragm and to further control or manage pulmonary stretch receptors to maintain airway patency such that an inspiration volume is different from an intrinsic inspiration volume of an intrinsic breath.

154. (Currently Amended): The device of claim 153 wherein the stimulator is further programmed to deliver a stimulation signal to the tissue through the at least one electrode to elicit an increased inspiration volume with respect to the intrinsic inspiration volume of the intrinsic breath.

155. (Currently Amended): The device of claim 153 wherein the stimulator is further programmed to deliver a stimulation signal to the tissue through the at least one electrode to elicit a decreased exhalation volume with respect to an intrinsic exhalation volume of the intrinsic breath.

156. (Currently Amended): The device of claim 153 wherein the stimulator is further programmed to deliver a stimulation signal to the tissue through the at least one electrode to elicit a decreased exhalation duration with respect to an intrinsic exhalation duration of the intrinsic breath.

157. (Currently Amended): The device of claim 153 wherein the stimulator is further programmed to deliver a stimulation signal to the tissue through the at least one electrode to elicit an inspiration rate different from an intrinsic inspiration rate.

158. (Currently Amended): The device of claim 153 wherein the stimulator is further programmed to deliver a stimulation signal to the tissue through the at least one electrode to elicit an exhalation rate different from an intrinsic exhalation rate.

159. (New): The device of claim 123 wherein said sensed respiration activity receives the sensed respiration activity.

160. (New): The device of claim 153 wherein the electrical stimulation signal is further configured to control or manage pulmonary stretch receptor levels to maintain airway patency.